DC440 High Build Epoxy Low Viscosity

Body / Topcoat

PRODUCT DESCRIPTION:
Epic DC440 is a specially formulated high build / low viscosity epoxy. This versatile product has a unique combination of excellent body and deep penetrating action, allowing it to be used in multiple applications and substrate types. Excellent for use as a body coat for broadcast systems, such as flake and other decorative aggregates and also doubles as durable and attractive topcoat. DC440 is recommended for warehouses, kitchens, restrooms, and other areas where either a high build, high body, clear coat is desired. **Low to no odor formulation.**

SOLIDS BY WEIGHT: 96.5%
SOLIDS BY VOLUME: 96%
VOLATILE ORGANIC CONTENT: Less than 35 g/l
STANDARD COLORS: Clear – gardner color 1-2
RECOMMENDED FILM THICKNESS: 12-18 mils
COVERAGE PER GALLON: 150-200 square feet per gallon @ 12-18 mils
PACKAGING INFORMATION
3 gallon kits
15 gallon kits
FINISH CHARACTERISTICS:
Gloss (60 to 90 @ 60 degrees @ glossmeter)
ABRASION RESISTANCE:
Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 36 mg loss
FLEXURAL STRENGTH: 7,400 psi @ ASTM D790
COMPRESSIVE STRENGTH: 11,200 psi @ ASTM D695
ADHESION: 350 psi @ elcometer (concrete failure, no delamination)
VISCOSITY: Mixed = 300-600 cps (typical)
DOT CLASSIFICATIONS:
Part A "not regulated"
Part B "CORROSIVE LIQUID N.O.S., 8, UNI1760, PGIII"
TENSILE STRENGTH: 7,600 psi @ ASTM D638
ULTIMATE ELONGATION: 4.1%
GARDNER VARIABLE IMPACTOR: 50 inch pounds direct – passed
HARDNESS: Shore D = 81
APPLICATION TEMPERATURE: 55-90 degrees F
PRIMER:
Optional, dependent on concrete porosity: DC120 clear
TOPCOAT:
Optional – DC440 (this product) or other compatible aliphatic urethanes.

CURE SCHEDULE: (70°)	
Pot life (1.5 gallon volume)	35-55 minutes
Tack Free (Dry to Touch)	6-8 hours
Recoat or Topcoat	10-16 hours
Light Foot Traffic	14-18 hours
Full Cure (Heavy Traffic)	2-7 days

CHEMICAL RESISTANCE	
butanol	C
xylene	C
MEK	A
1, 1, 1 trichloroethane	B
methanol	A
ethyl alcohol	C
skydrol	B
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric	C
70% sulfuric acid	A
10% HC1 (aq)	C
5% acetic acid	B

Rating key: A - not recommended, B - 2 hour term splash spill, C- 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

MIXING AND APPLICATION INSTRUCTIONS (DC440)

1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should be between 60 and 90 0 F. Low temperatures or temperature fluctuations may cause crystallization.

2) **SURFACE PREPARATION:** The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4x4 plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.

3) **PRODUCT MIXING:** Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.

4) **PRIMING:** When substrate is porous, a suitable primer should be used before applying this product. See the front side of this technical data for primer information. If a primer is not used, more porous substrates may cause outgassing and possible surface defects.

5) **PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. However, the material can also be applied by a suitable serrated squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating. This product can be used with various colored sand in a broadcast system or other suitable aggregate can be used in conjunction with this product to achieve a variety of color and application patterns. When using as a broadcast binder, always evaluate performance parameters with a test area which is dependent on aggregate size and thickness, prior to application. Contact your representative for details as necessary.

6) **RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating or recoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.

7) **CLEANUP:** Use xylol

8) **FLOOR CLEANING:** Some cleaners may affect the color. Test each cleaner in a small area, prior to continuance in larger areas.

9) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured. It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.

10) **SHELF LIFE:** 1 year in unopened containers

LIMITATIONS

- Color stability or gloss may be affected by environmental conditions such as high humidity, chemical exposure, UV exposure or exposure to lighting such as sodium vapor lights.
- Colors may vary from batch to batch. Therefore, only use products from the same batch for an entire job.
- This product is not UV color stable. Clear aliphatic urethane top coats reduce (UV light) color changes.
- Substrate temperature must be 5°F above the dew point.
- For best results, apply with a ¼" nap roller.
- All new concrete must be cured for at least 30 days prior to application.
- Apply a suitable primer before using this product
- See reverse side for application instructions.
- Physical properties are typical values and not specifications.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

LIMITED WARRANTY Epic warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Epic materials prove to contain manufacturing defects that substantially affect their performance, Epic will, at its option, replace the materials or refund its purchase price. This limited warranty is the only warranty extended by Epic with respect to its materials. There are no other warranties, including the expressed or implied warranty of merchantability and fitness for a particular purpose. Epic specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever. The dollar value of Epic's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Epic material in question. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.